

www.FirstRanker.com

www.FirstRanker.com

Code No: R1621354



SET - 1

## II B. Tech I Semester Regular/Supplementary Examinations, October/November - 2018 PROPERTIES AND STRENGTH OF MATERIALS

Time: 3 hours

(Agricultural Engineering)

Max. Marks: 70

## Note: 1. Question Paper consists of two parts (Part-A and Part-B) 2. Answer ALL the question in Part-A 3. Answer any FOUR Questions from Part-B

## PART -A

1.	a)	What are the important properties of good building stone?	2M
	b)	Differentiate between paints and varnishes	2M
	c)	Define seasoning of timber .Why is it necessary?	3M
	d)	Find the deflection between of a simply supported beam with central point load.	3M
	e)	What are the limitations of Euler's formula?	2M
	f)	Explain Claypeyorn's theorem of three moments	2M
		PART -B	
2.	a)	Discuss the classifications of rocks.	7M
	b)	Describe the properties, varieties and uses of cement mortar	7M
3.	a)	What do you understand by alloys of copper? Mention the properties and discuss their use in agricultural activities.	8M
	b)	Describe the properties of distemper and bring out its uses in buildings.	6M
4.	a)	Discuss the methods of heat treatment of steel.	7M
	b)	Draw the cross section of tree and name its various parts.	7M
5.		Derive the relation between E,C,K.	14M
6.		Derive an expression for buckling of a column when both ends are fixed.	14M
7.	a)	What are the different types of welded joints? How to calculate the strength of welded joint?	10M
	b)	What is super position theorem?	4M

1 of 1